

Exhibit B

The 510(k) Program: Evaluating Substantial Equivalence in Premarket Notifications [510(k)]

Guidance for Industry and Food and Drug Administration Staff

Document issued on: July 28, 2014

The draft of this document issued on December 27, 2011.

**This document supersedes FDA's Guidance on the CDRH Premarket Notification
Review Program, 510(k) Memorandum K86-3, dated June 30, 1986.**

For questions for the Center for Devices and Radiological Health regarding this document, contact the
Premarket Notification (510(k)) Section at 301-796-5640.

For questions for the Center for Biologics Evaluation and Research regarding this document, contact the
Office of Communication, Outreach and Development at 1-800-335-4709 or 240-402-7800.



**U.S. Department of Health and Human Services
Food and Drug Administration
Center for Devices and Radiological Health
Center for Biologics Evaluation and Research**

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States a Class I, II, or III device intended for human use, for which a Premarket Approval application (PMA) is not required, must submit to FDA a premarket notification submission (often referred to as a 510(k)), unless the device is exempt from the 510(k) requirements of the FD&C Act and does not exceed the limitations of exemptions for each of the device classification regulations (Section .9 of 21 CFR Parts 862 through 892, e.g., 21 CFR 862.9, 21 CFR 864.9, etc.). Under section 510(k) of the FD&C Act, a manufacturer must submit a 510(k) to FDA at least 90 days before introducing, or delivering for introduction, a device into interstate commerce for commercial distribution so the Agency can determine whether or not the device meets the criteria for market clearance (Sections 510(k) and (n) of the FD&C Act (21 U.S.C. §§ 360(k) & (n))). The Agency bases its decision on whether the device is substantially equivalent (SE) to a legally marketed (predicate) device (Section 513(i) of the FD&C Act (21 U.S.C. § 360c(i))). The device cannot be commercialized until FDA issues an order (510(k) clearance) stating that the device has been determined to be SE (Section 513(f)(1) of the FD&C Act (21 U.S.C. § 360c(f)(1))).

B. The 510(k) Classification Process

According to section 513(f) of the FD&C Act, a new (i.e., post-amendments) device is automatically in Class III and must undergo premarket approval or reclassification before it can be marketed, unless it is a type of device that was in commercial distribution prior to May 28, 1976, and is SE to another such device; or it is within a type of device introduced after May 28, 1976, that has been reclassified into Class I or II and is SE to another device within such classification. For information about how FDA's classification product codes assist in accurate identification and tracking of current medical devices, please see FDA's Guidance for Industry and Food and Drug Administration Staff, "[Medical Device Classification Product Codes](http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm285317.htm)" (<http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm285317.htm>).

When FDA determines under sections 510(k), 513(f)(1), and 513(i) of the FD&C Act that a new device is SE to a legally marketed (predicate) device, the new device is classified into the same class and subject to the same requirements as the predicate device. (See **Section IV.C.**) A determination that a new device is not substantially equivalent (NSE) to a predicate device results in the new device being classified into Class III. Thus, 510(k) review is both the mechanism by which a manufacturer seeks marketing authorization for a new device and by which FDA classifies devices into their appropriate regulatory category. Because devices are classified according to the level of regulatory control necessary to provide a reasonable assurance of safety and effectiveness,⁶ classification of a

device for which a classification regulation has not been promulgated. Unclassified devices require submission of a 510(k) premarket notification to FDA. A not-classified device is a post-amendments device for which the Agency has not yet reviewed a marketing application or for which the Agency has not made a final decision on such a marketing application. A pre-amendments device is a device that was on the market prior to the enactment of the Medical Device Amendments to the FD&C Act on May 28, 1976.

⁶ The three device classes are described in section 513(a) of the FD&C Act (21 U.S.C. § 360c(a)):

(1) There are established the following classes of devices intended for human use:

(A) CLASS I, GENERAL CONTROLS.—

(i) A device for which the controls . . . are sufficient to provide reasonable assurance of the safety and effectiveness of the device.

(ii) A device for which insufficient information exists to determine that the controls referred to in clause (i) are sufficient to provide reasonable assurance of the safety and effectiveness of the device or to establish special controls to provide such assurance, but because it—

(I) is not purported or represented to be for a use in supporting or sustaining human life or for a use which is of substantial importance in preventing impairment of human health, and

(II) does not present a potential unreasonable risk of illness or injury, is to be regulated by the controls referred to in clause (i).

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new device through the 510(k) process requires FDA to determine the issues of safety and effectiveness presented by the new device, and the regulatory controls necessary to address those issues.⁷

C. Evolution of the 510(k) Program

Since its inception, the 510(k) program has undergone a number of statutory changes. Notably, the Safe Medical Devices Act of 1990 (Pub. L. 101-629) added section 513(i), which codified FDA review practice in applying the “substantial equivalence” review standard. In addition, FDA has modified its implementation of the program to adapt to changing circumstances and to accommodate the evolving medical device landscape. For example, the alternative options of a Special 510(k) or an Abbreviated 510(k) still exist today. Additional information regarding these alternative options can be found in FDA’s guidance, “[The New 510\(k\) Paradigm – Alternative Approaches to Demonstrating Substantial Equivalence in Premarket Notifications](http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm080189.pdf)” (<http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm080189.pdf>). The current 510(k) program reflects the current statutory framework and FDA’s implementation of that framework through regulation, guidance, and administrative practice. A history of the 510(k) program has been summarized in other documents that FDA has published.⁸

This guidance document provides updated information to the existing guidance document entitled “Guidance on the CDRH Premarket Notification Review Program, 510(k) Memorandum K86-3” (K86-3 Guidance), issued on June 30, 1986. The K86-3 Guidance was written and issued as final guidance prior to the February 27, 1997 implementation of FDA’s Good Guidance Practices (GGPs), and has not been updated since its initial publication date. This guidance replaces the K86-3 Guidance.

(B) CLASS II, SPECIAL CONTROLS.—A device which cannot be classified as a class I device because the general controls by themselves are insufficient to provide reasonable assurance of the safety and effectiveness of the device, and for which there is sufficient information to establish special controls to provide such assurance . . .

(C) CLASS III, PREMARKET APPROVAL.—A device which because—

- (i) it (I) cannot be classified as a class I device because insufficient information exists to determine that the application of general controls are sufficient to provide reasonable assurance of the safety and effectiveness of the device, and (II) cannot be classified as a class II device because insufficient information exists to determine that the special controls described in subparagraph (B) would provide reasonable assurance of its safety and effectiveness, and
 - (ii)(I) is purported or represented to be for a use in supporting or sustaining human life or for a use which is of substantial importance in preventing impairment of human health, or
 - (II) presents a potential unreasonable risk of illness or injury,
- is to be subject, in accordance with section 515, to Premarket approval to provide reasonable assurance of its safety and effectiveness.

⁷ If FDA has established special controls applicable to the device type, the 510(k) would need to adequately address the issues covered by the special controls for the device to be classified into Class II. See Section 513(a)(1)(B) of the FD&C Act (21 U.S.C. § 360c(a)(1)(B)).

⁸ See [CDRH Preliminary Internal Evaluations – Volume I: 510\(k\) Working Group Preliminary Report and Recommendations](http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDRH/CDRHReports/UCM220784.pdf) (<http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDRH/CDRHReports/UCM220784.pdf>). See also [CDRH Preliminary Internal Evaluations – Volume II: Task Force on the Utilization of Science in Regulatory Decision Making Preliminary Report and Recommendations](http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDRH/CDRHReports/UCM220783.pdf) (<http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDRH/CDRHReports/UCM220783.pdf>). See also [510\(k\) and Science Report Recommendations: Summary and Overview of Comments and Next Steps](http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDRH/CDRHReports/UCM239449.pdf) (<http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDRH/CDRHReports/UCM239449.pdf>).